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(54) **SINGLE CRYSTAL, PROCESS FOR PRODUCING SAME, OPTICAL ISOLATOR, AND OPTICAL PROCESSOR USING SAME**

(57) The present invention provides a single crystal for an optical isolator having a Faraday rotation angle exceeding that of TGG single crystal in a wavelength region of 1064 nm or longer or in a wavelength region of shorter than 1064 nm, and is capable of realizing enlargement of crystal size, a production process thereof, an optical isolator, and an optical processor that uses the optical isolator. The single crystal according to the present invention is composed of a terbium aluminum garnet single crystal, and mainly a portion of the aluminum is replaced with lutetium.

FIG. 1

